



# Local Government Climate Action Planning

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# Introduction- Local Climate Action Planning

# What is climate action planning?

- A community's response to climate change
- Local strategic planning process that identifies how, when, and to what degree a community will reduce local greenhouse gas emissions and adapt to the existing or expected impacts of climate change



# Areas of local climate action



- Transportation & land use
- Renewable energy
- Energy efficiency
- Land management
- Sequestration
- Adaptation (& hazard mitigation)
- Education & outreach
- Municipal operations

# What are CAPs?

- Climate action plans (CAPs) are strategic plans that establish policies and programs for reducing (or mitigating) a community's greenhouse gas (GHGs) emissions and adapting to the impacts of climate change.
  - *Local Climate Action Planning (2011)*



# Local GHG Emission Sources

## Community-wide

- Residential, Commercial and Industrial Energy Use
- Transportation
- Solid Waste
- Off-Road Equipment
- Aircraft (take-off and landings)
- Agriculture and Livestock





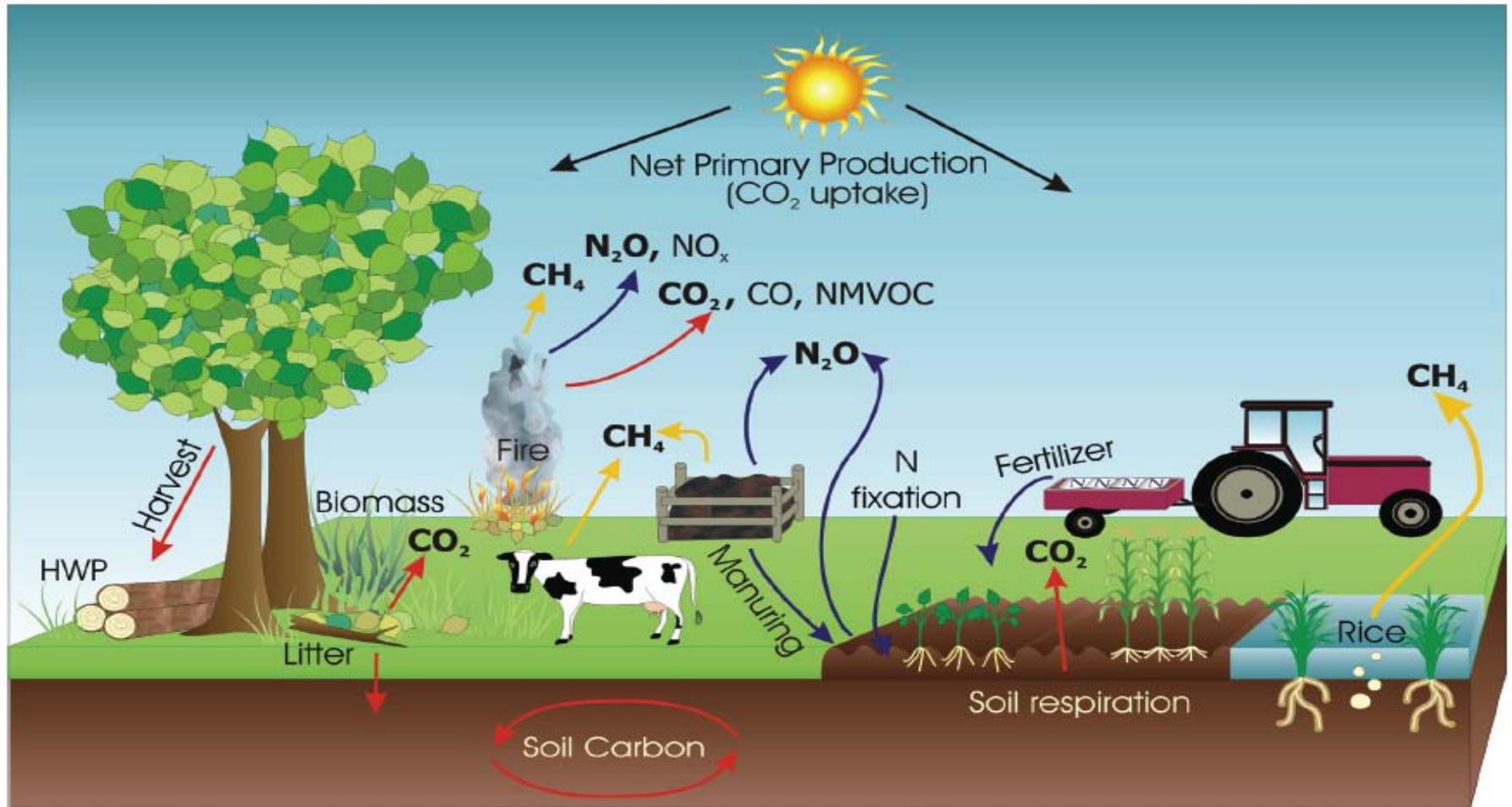
# Local Climate Action Planning and Agriculture in San Luis Obispo County

# Agriculture GHG Emissions

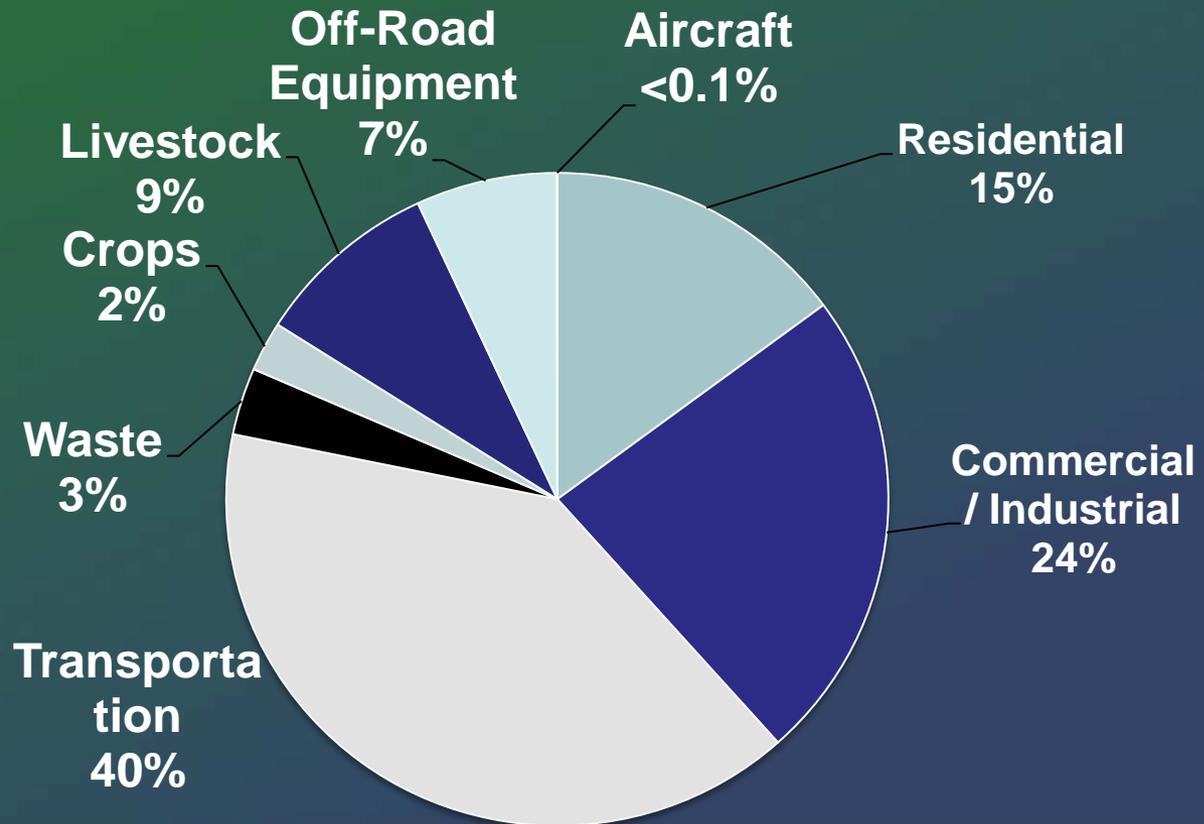
- Statewide – agriculture represents approx 6% of the State's GHG inventory
- Locally – agriculture can represent up to half of local GHG emissions
- The agriculture sector is unique – majority of GHG emissions from the sector involve biological processes.
- Limited local regulatory control on agricultural practices and activities

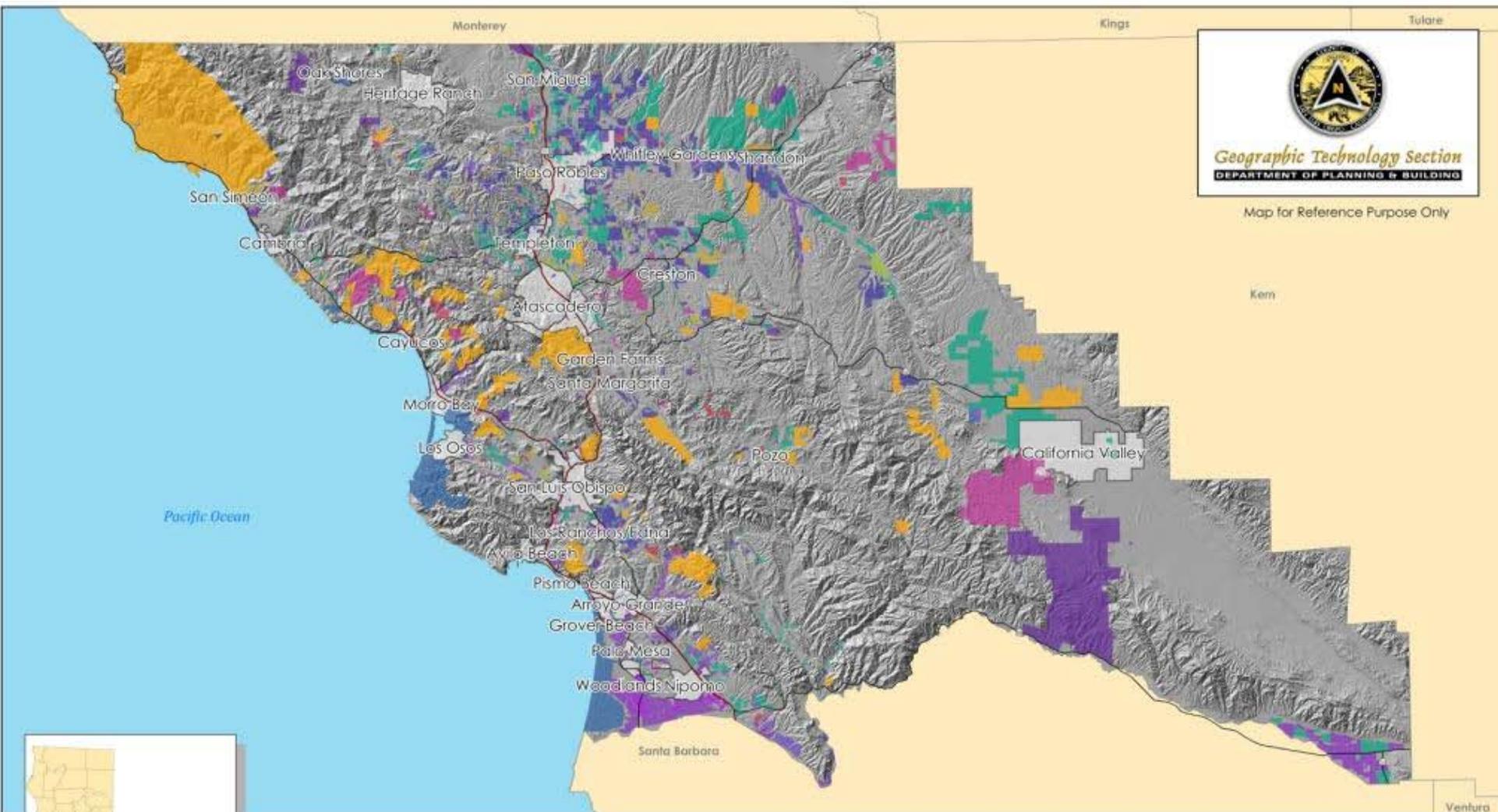


# Agriculture GHG Emissions



# San Luis Obispo County



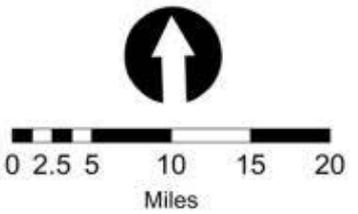


Map for Reference Purpose Only



**LEGEND**

<b>Crop Types</b>	berry/vegetable	inactive	non-ag	rangeland	turf-sod	vegetable-rotational
apple	fallow	industrial	non-crop	research	uncultivated ag	vertebrate cntrl
avocado	field-rotational	landscape mntce	nursery	seed	uncultivated non-ag	vineyard
beehives	flowers	leased	orchard	structural	undeclared	water area
berry	herbs/spice	livestock	pasture	total site	vegetable	wine grape



# Local CAPs –SLO County GHG reduction measures for agriculture

- Initiated a Climate Action Plan in May 2010 to respond to AB 32 and to implement the County's General Plan
- Reduction target of 15% below 2006 levels by 2020
- Extensive stakeholder engagement process to educate and engage
- Board of Supervisors will consider Plan on Nov. 22, 2011



# Local CAPs –SLO County GHG reduction measures for agriculture

- The County will collaborate with Cal Poly, agriculturalists, the University of California Cooperative Extension (UCCE), and the County's resource conservation districts (RCDs) to develop and disseminate appropriate voluntary management practices for the application of pesticides and fertilizers, tillage practices, cover crops, and other techniques to reduce nitrous oxide emissions, maximize carbon sequestration, and reduce fuel use



# Local CAPs –SLO County GHG reduction measures for agriculture

- Encourage voluntary energy conservation through appropriate and practicable efficient energy, water, and resource management practices.
- Implement a voluntary fermentation and manure management program.
- Reduce fuel use and GHG emissions from off-road agricultural equipment.



# Local CAPs – Yolo County GHG reduction measures for agriculture



- Reduce nitrogen fertilizer application rates
- Reduce fossil fuel consumption in field equipment
- Reduce energy use in agricultural irrigation pumping
- Reduce confined livestock manure methane emissions
- Reduce methyl bromide application
- Sequester carbon in agricultural landscapes

# Local CAPs – SLO County Potential Climate Change Impacts

## Negative Impacts on Agricultural Productivity

- Agriculture and agricultural-related tourism are two of the most significant economic industries.



# Local CAPs – SLO County Potential Climate Change Impacts

- **Potential to negatively affect agricultural productivity, resulting in a loss of food security and decrease in agricultural-related tourism.**
  - Higher temperatures
  - decrease in water supply
  - shifts in seasonal changes



# Local CAPs – SLO County

## Adaptation measures for agriculture

Ensure resiliency of the county's agriculture sector.

- Utilize GIS mapping systems to analyze the potential impacts of climate change on agricultural resources.
- Identify actions and responses to minimize the spread or invasion of new pests, diseases, or weeds that may be harmful to agricultural productivity.



# Local CAPs – SLO County

## Adaptation measures for agriculture



- Work with the UC Cooperative Extension and agricultural organizations to assist and educate farmers in adapting to the effects of climate change. Adaptation techniques may include changes in crop selection, patterns, and practices.
- Work with agricultural providers, the UC Cooperative Extension, and researchers to identify crops that may be better fit to adapt to warmer growing seasons and more frequent freeze events.

# Local Challenges and Opportunities

- Complex with multiple uncertainties and linkages
  - Sequestration benefits at the local level are uncertain
  - Local control is limited
  - Voluntary measures are preferred to new regulations and mandates
  - Economic value extends beyond local boundaries



# Questions?

[www.slocounty.ca.gov/planning/CAP](http://www.slocounty.ca.gov/planning/CAP)

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